

### ABSTRACT OF THE DISCLOSURE

A miniature combustor comprising a combustion chamber having at least one critical dimension that is sub-centimeter. Combustion is confined within the chamber by injecting a liquid fuel as a film over substantially the entire area of the chamber walls. In a preferred embodiment, a swirl or vortex generator may be included at the entrance of the chamber to cause the in-flowing oxidizing gases to swirl within the chamber. The liquid fuel may be applied as a film through one or more orifices or a porous wall material, or may be applied by spraying the fuel on a surface within the chamber. The liquid fuel may be augmented with an inert liquid such as water.